Practice Guidelines in the DoD

DoD/VA CPG Working Group

- Select & adapt existing CPGs from National Organizations for use in the DoD/VA
- Utilize multi-disciplinary panels
- ID process & outcome measures
- Integrate CPGs into information systems to optimize implementation

Why Automate Guidelines?

Enabling Logistics for guidelines

- Automation
- Behaviorism
- Education

Dr. Casanova, ACPE, 1997

OBJECTIVES

- Develop and test within the enterprise-wide information system a prototype for the introduction of automated CPGs
- Prototype will serve as the instrument for determination of future functional requirements
- Use a dynamic, field laboratory incorporating spiral prototyping methodologies to quickly adapt CPG to support desired clinical process

CPG Support Tool: Clinical Process Modeling Team

- Tri-Service Reps from DoD/VA CPG Working group who helped create the DoD LBP guideline
- Tri-Service Reps from CHCSII Increment 1 primary care implementation sites (clinic champions)
- Tri-Service reps from Informatics subgroup to the DoD/VA CPG working group

DoD/VA CPG Working Group

- **Initial Builds**
  - Low Back Pain
  - Asthma
- **Subsequent Development**
  - Hypertension
  - Smoking Cessation
  - Diabetes Mellitus

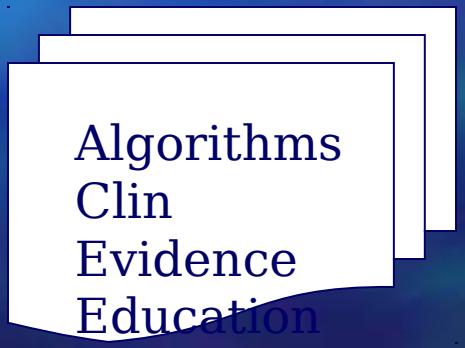
Promote Provider Acceptance

- Workshops - local and at site
- Comment/advice on templates
- Define operational CPG issues
- Recommend CPG business rules
- Leverage paper-based model
- Define metrics & feedback proce
  assess CPG impact(s) in clinica

Defining the Clinical Process Model for Automating CPGs

Cultural Barriers	Proponents & Opinion Leaders	Clinical Operational Issues
Business Rules	Screen Presentations	Paper Model Strategies
Metrics	Literature Findings	Central Info / Advice

Local Domain Expert Workshops



Site End-User Workshops / Evaluation

Review

- ✓ Date / Time
- Problem Pre Procedure
- Vital Signs
- ✓ Consent
- ✓ Procedures
- ✓ Description of Procedure
- Problem Post Procedure
- Plan of Care
- Preventive Care
- Level of Service

Edit Section Bar ...

Oceania

Procedure Note

Date / Time: 13-nov-1998 10:53:09

Consent:

☐ Informed consent obtained : _____.

Procedures:

BIOPSY, SOFT TISSUE OF FOREARM AND/OR WRIST;SUPERFICIAL.

Description of Procedure:

Biopsy of skin:

☐ Pre-procedure medication(s) local anesthesia Lidocaine concentration 1%, dose : _____.

☐ Pre-procedure medication(s) local anesthesia lidocaine with epinephrine concentration 1%, dose : _____.

Site : __<R>__.

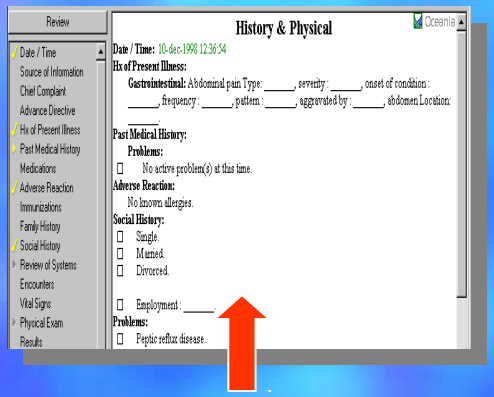
Tissue type : __<R>__.
Site prep : _____.
Drape : _____.
Method : _____.
Incision : _____.
Hemostasis : _____.

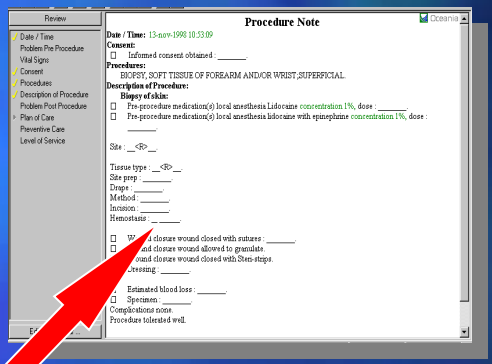
☐ Wound closure wound closed with sutures : _____.
☐ Wound closure wound allowed to granulate.
☐ Wound closure wound closed with Steri-strips.
☐ Dressing : _____.

☐ Estimated blood loss : _____.
☐ Specimen : _____.

Complications none.
Procedure tolerated well.

Algorithm to Template

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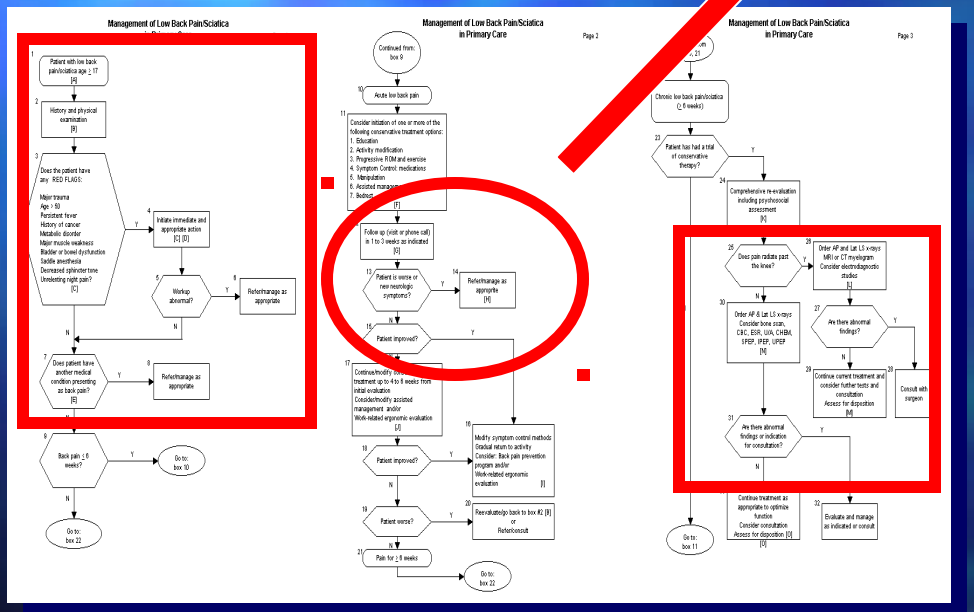
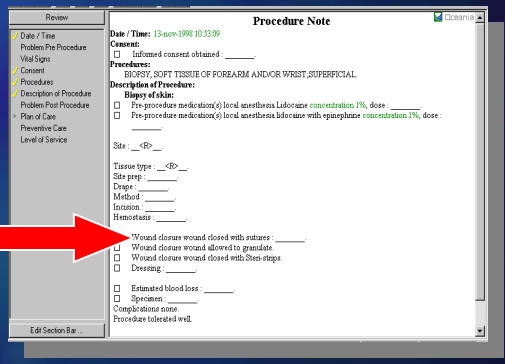

Management of Low Back Pain/Sciatica
Management of Low Back Pain/Sciatica in Primary Care
Page 2
Management of Low Back Pain/Sciatica in Primary Care
Page 3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Variety of Links

Provider Education Material

Providre Education Material will be accessed via an
in the template.
ormats.

Patient Education Material

This is a test page to support the CPG for Low Back Pain. Pateine Education Materia will be accessed via an HTML link to be built within the template. It is designerd to provide the provider ready access to eductaional material during the
centralized manner.

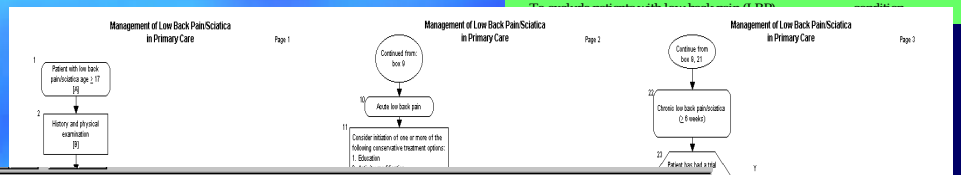
MANAGEMENT OF LOW BACK PAIN OR SCIATICA IN PRIMARY CARE

SUMMARY ANNOTATIONS

A. Patient with Low Back Pain Age Greater than 17 Years

OBJECTIVE:

- Character or description of pain (mechanical, radicular, claudicant, non specific).
- Nature or the limitations imposed by the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Procedure tolerated well.

"POINTER"

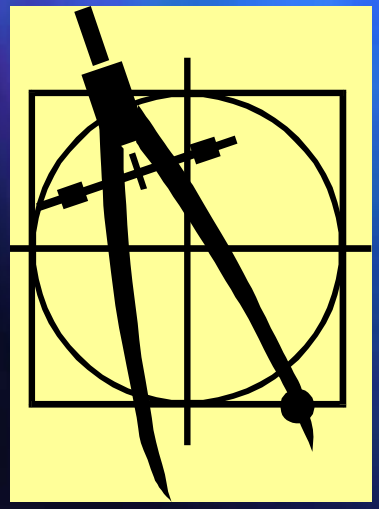
METRICS

Support population health management

Clinical Outcome

Clinical Process

Functional Utility & Performance



EVENT TIMELINE

Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
LBP & Asthma Work-shops (Local)			Oahu Workshops		Oahu Alpha Testing		Oahu Beta Testing	Final Report
	Construct Demo			ATIC Testing				
		Build HTML Links						

Integrating CPGs with the CPR

CDR Jean Cohn
Functional Manager
Clinical Business Area

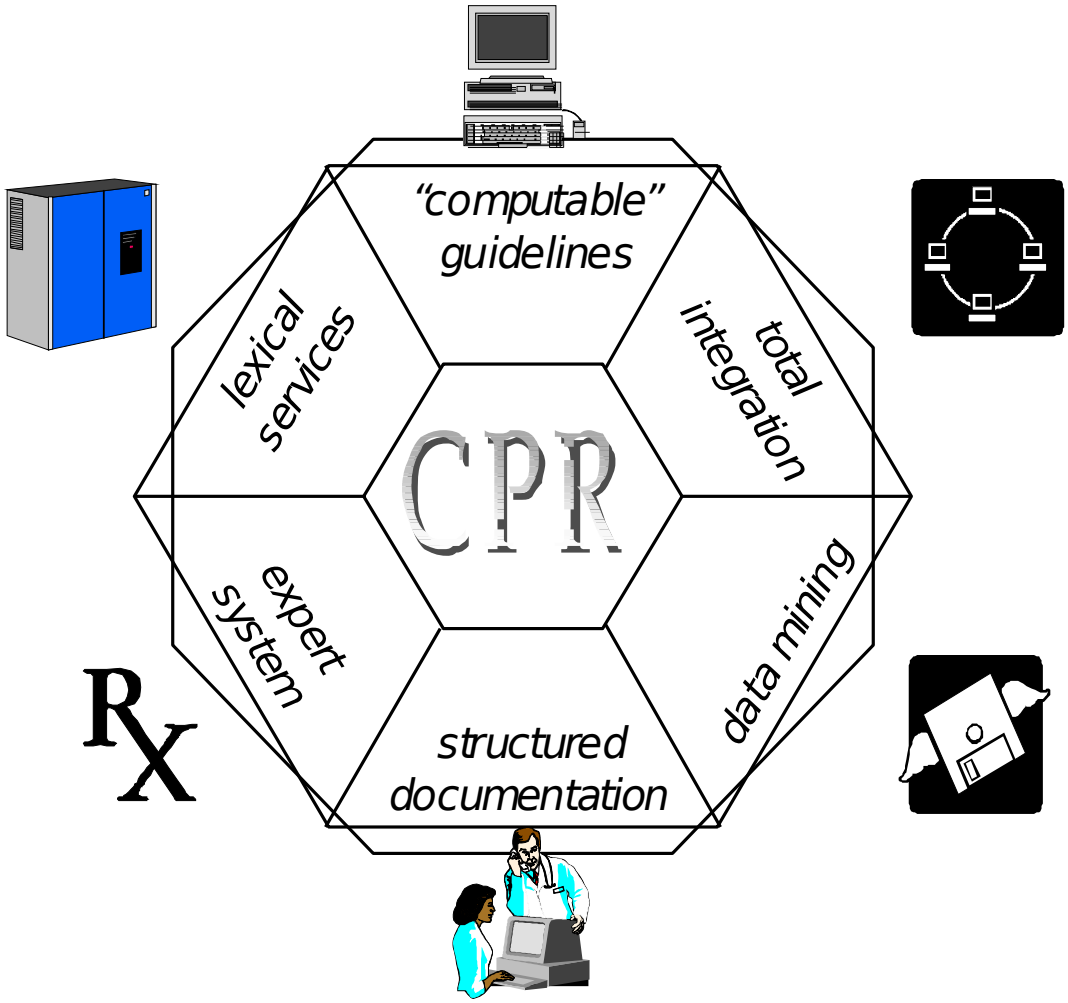
Outline

- Role of the CPR in CPGs
- Range of Automation in CPGs
- Current DoD solution to CPG automation

CPG Implementation with the DoD CPR

- Computable guidelines
- Lexical services
- Expert systems
- Structured documentation
- Total Integration

Practice Guidelines



LEVELS OF AUTOMATION FOR CPGs

- On-line search of guidelines
- Template based approach
- Interactive algorithms
- Guideline-embedded CPR

Current Level Of DoD Automation of CPGs

- Template based approach
  - Structured documentation tool
  - Use DoD-VA CPGs
  - First step in process

DoD CPR - current

- CHCS II, Increment 1 (currently being tested in Hawaii)
  - Structured documentation
  - Summary of care/Problem list
  - Results retrieval
  - Coding as byproduct of documentation
  - Order entry (telnet to current system)
  - Expanded clinical evidence database

DoD CPR - current

CHCS II, Increment 1

- Implemented at
  - Family Practice Hickam AFB
  - Family Practice Pearl Harbor
  - Gyn Clinic at Tripler AMC
- Implement next at 3 dental clinics
- After this test period - 15 other clinics on Hawaii

DoD CPR - planned

- CHCS II, Increment 2
  (currently in development)
  - Consult tracking
  - Order entry refinements
  - Integrate PHCA
  - Lexicon
  - Clinical Data Repository (CDR)
  - Master Patient Identifier/Master Patient Locator
  - Enhanced security services

Why Automate CPGs? Summary

- Puts evidence-based medicine in the hands of providers to guide healthcare interventions
- Allows for consistent, quality care
- Facilitates provision of appropriate care while concurrently reducing variation
- Reduces iatrogenic injury
- Facilitates learning

QUESTIONS?

BACKUPS

What are CPGs?

"...systematically developed statements to assist practitioner and patient decisions about appropriate health care services for specific clinical circumstances."

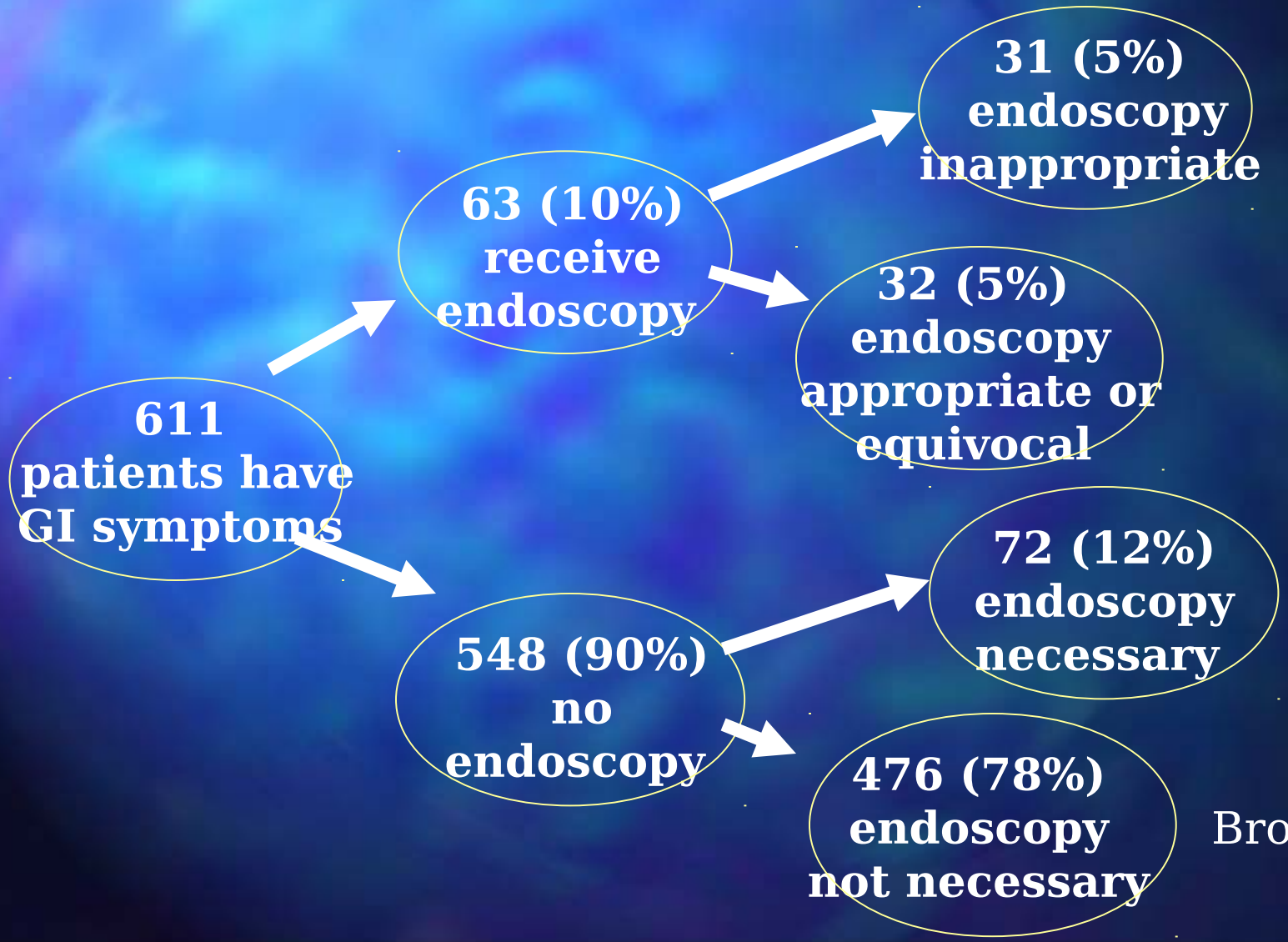
Source: Institute of Medicine (1992)

Evidence vs. Tradition

…While 20% of medicine relies on research, as much as 80% is still based on tradition and opinion. Tradition and opinion is the clutter that is encumbering safe and productive outcomes in health care today

Dr.Brent James' speech to Robert Wood Johnson Grant recipients, March 1991

Appropriateness of Care


611 patients have GI symptoms
63 (10%) receive endoscopy
31 (5%) endoscopy inappropriate
32 (5%) endoscopy appropriate or equivocal
548 (90%) no endoscopy
72 (12%) endoscopy necessary
476 (78%) endoscopy not necessary

Brooks, 1998

Error in Medicine

- **1991 Harvard Medical Practice Study:**
  - "Population-based study of iatrogenic injury in patients hospitalized in the state of New York in 1984. . .4% of patients suffered an iatrogenic event increasing their LOS or resulting in measurable injury. . .for NY state, this equaled 98,609 . . . nearly 14% of these injuries were fatal. . . .***If these rates are typical in the U.S., then 180,000 people die every year as a result of iatrogenic injury"***

Leape, 1994

Gaps Between Knowledge and Practice

- Substantial geographic variation exists in clinical practice
- “Therapies with proven benefit for AMI are under-used despite strong evidence that their use will result in better patient outcomes.”

Connor, et al., JAMA, 17 Feb, 1999